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## ORIGINAL DEPARTMENT.

### Communications.

#### DEFECTIVE AND IMPAIRED VISION.

With the Clinical Use of the Ophthalmoscope in their Diagnosis and Treatment.

By LAURENCE TURNBULL, M.D.,

Of Philadelphia.

#### Astigmatism.

Rays of light coming from the sun or any other luminous body, and striking upon the eye, are said to be refracted, or bent, and by their passage through the various media, are united in one focus. But this is only true if the eye is perfect. If any of the dioptric or refractive portions of the eye are imperfect, this reunion is not perfect, and there is spheric aberration; such an aberration depending on differences in the different meridians of the refracting apparatus, is called astigmatism. This term was invented by Rev. Dr. WHEWELL, from two Greek words, meaning that rays coming from one point, are not united on one point in this condition.

This inability to collect light on one exact point of the retina is not common. Such is my experience.\* The first case which I examined, in an extensive experience, (that of Dr. D., of Philadelphia,) was caused by an alteration in the refracting surface of the cornea, the vertical meridian of that membrane having a greater degree of convexity than the horizontal.

The crystalline lens is also the cause of astigmatism, but is stated to be not as frequent a cause as the cornea. To determine if a patient is laboring under this defect, he is directed to close one eye, and examine with the other the cross lines of a window-frame, any deviation in the distinctness with which these may be observed, or in the apparent length or breadth, as looked at with the head in an upright or inclined position upon the shoulder, betrays irregularity more or less, in the refracting media or surfaces of the eye. Therefore, in a true case of astigma-

tism, horizontal and vertical lines cannot be seen with equal clearness at one and the same time.

What is the treatment? This, fortunately, was discovered long before DONDERS\* brought the subject prominently before the profession. By his careful investigation and publication, in 1863, of the application of a mathematically correct measurement of the deflection of light, he determined an almost constant difference of refractive power of the cornea. If a cylindrical glass is put before an astigmatic eye, it is found to correct it. This condition, as I stated before, was corrected by the elder McALLISTER, the distinguished optician of our city, many years ago, but the number of such cases were few; and the eye of the patient so affected was called a cylindrical eye. Each case being more or less peculiar, lenses must be specially prepared for it; and it requires both skill and intelligence on the part of the optician.

The general principle on which the glass is shaped is this: one side of the lens is made a portion of a cylinder, of the same diameter as the cylinder cornea, having its axis, however, placed at right angles to that of the latter. The other side of the lens is made plane, convex, or concave, to suit the condition of the eye, irrespective of its cylindricity or astigmatic condition. If a simple cylindrical glass correct the vision, it is called normal, but if the focal distance of the neutralizing cylinder is more than 1-40, it is termed abnormal.

#### On Lenses.

Spectacle glasses, or lenses, are numbered according to their focus. To determine the focus of a lens is an important matter. The focus is the number of inches between the lens and a distinct representation formed by it of an object, which is at a distance of 50 to 100 feet—thus, take a lens of say six inches focus, and stand in the back of a room opposite the window; then holding the lens at the distance of six inches from the wall, there will be seen upon it a distinct image of an object out of doors. If the lens is

\* Prof. DONDERS' work on the Accommodation and Refraction of the Eye. Translated for New Sydenham Society, London, 1864—(but not received by many of its members in Philadelphia.)

\* This is our reason for not having treated of the subject before.

held at more or less than six inches from the wall, the image will be confused and indistinct; so of a lens of any other focus—the image formed by refraction will, when distinct, indicate the focus according to the number of inches between the lens and the wall.

In France, SICHÉL has recommended the higher number of lenses, but of feeble power, as for instance, 96, 80, 72. He advises these should be made use of in the outset, especially by the presbyopic patient. He also observes that the curvature of the arc of a circle increases in proportion to the diminution of its radius, it follows that the number of the glass, reckoned by its *focus*, diminishes with its power, the lens of the lowest number being the strongest, and *vice versa*. In England and the United States, these numbers are merely conventional. Thus, for instance, No. 1, corresponds to No. 48, French; No. 2, to No. 36. This is unfortunate, and should be remedied. The same numbers should be adopted in all these countries. In a set of concave glasses, I find No. 0, in English, corresponds with No. 36, German; No. 1, English, to No. 24, German; No. 2, English, to No. 18, German; No. 3, to 16; 4—15; 5—12; 6—10; 7—9; and so on.

In convex glasses they number 16 to 36 inches, the same, English and German, and the cataract glasses are the same, but, in England, different opticians use different numbers. This should not be so.

#### Presbyopia.

In my former papers I treated, at some length, the important subject of myopia. I will now endeavor to bring before my readers some account of presbyopia, and what light the ophthalmoscope has thrown upon it.

The far-sighted or presbyopic individual whose eye is thus affected, is generally about forty, still there are cases of young persons who also suffer from this defect of vision. A case of this kind presented itself to me this year, 1865, in a young physician who was liable to the draft, his age being 30 years, and who had suffered from this difficulty of vision from a boy, following a severe attack of disease. The symptom of the approach of this condition, is a failure in being able to see near objects, while they can be seen perfectly at a distance. This condition is often accompanied by amblyopia, (weakness of sight,) and when this is the case, we must resort to the ophthalmoscope, to see if the patient is not tending to glaucoma. If it is not any other disease, by means of a proper convex glass, we shall be able to restore the patient's vision and normal range of accommodation.

DONDERS has found that in the normal (emmetropic) eye, the near point gradually recedes, even from an early age, further and further from the eye, and that, in consequence of this, vision of very minute objects becomes proportionately more and more difficult. This recession of the near-point commences about the tenth year, and progresses regularly with increasing age. At forty it lies about 8" from the eye, at fifty, 11"—12", and so on. In the normal eye, no inconvenience or annoyance is experienced from this recession, till about the age of forty or forty-five. At seventy or eighty years of age, it may be = 1-24, *i. e.*, the patient can see distinctly at a distance, with a convex glass of 24" focus. DONDERS considers presbyopia to begin when the near-point is removed further than 8" from the eye. The degree of presbyopia may, according to DONDERS, be easily found thus. If  $p > 8'' = 8 + n$  presbyopia,  $Pr. = \frac{1}{2} + n - \frac{1}{2}$ .

This simply means that we are to deduct the near-point (8") at which we consider presbyopia to commence, from the presbyopic near-point. If, for instance, the latter lies at 12", it would be  $1-12 - 1-8 = -1-24$ ,  $Pr. = -1-24$ . Again, if it lies at 16", it is  $1-16 - 1-8 = -1-16$ ,  $Pr. = -1-16$ . We have, at the same time, found the number of the convex glass which would bring the near-point back again to 8". In the first case it would be convex 24; in the last, convex 16.

WELLS\* thinks there can be no question as to the advisability and necessity of affording far-sighted persons the use of spectacles. They should be furnished with them as soon as they are in the slightest degree annoyed or inconvenienced by the presbyopia. Some medical men think that presbyopic patients should do without spectacles as long as possible, for fear the eye should, even at an early period, get so used to them as to find them indispensable. This is, however, an error, for if such persons are permitted to work without glasses, we observe that the presbyopia soon rapidly increases. In choosing spectacles for far-sighted persons, we must also be particularly guided by the range of their power of accommodation. If this is good, we may give them glasses which bring their near-point to 8", but if it is much diminished, weaker glasses should be chosen, so that it may be at 10"—12" from the eye.

VON GRAEFE thinks that the rapid increase of presbyopia is most likely due to an increase of intra-ocular pressure and flattening of the cornea.

\* Exact eye.

† Three and a half to four inches.

‡ Long, short, and weak sight, and their treatment by the scientific use of spectacles, by J. SOULSBURG WELLS. London 1862.

## VESICO-ABDOMINAL FISTULA.

By J. S. PARRY, M. D.,

Resident Physician, Philadelphia Hospital.

J. H., colored, intemperate, was admitted into the surgical wards of the Philadelphia Hospital on the 25th of May last, laboring under secondary syphilis. There were no primary symptoms, and the case presented no peculiar features. He improved steadily, and was apparently nearly well on the 28th of June following, when he eloped.

Nothing more was heard of the man until the third of the next August, when he applied for readmission, with an opening in the median line of his abdomen, one inch below the umbilicus. Through this he evacuated his bladder, the urine, when he stood up and made some effort, being projected forward two and a half to three feet. The history was rather indefinite. He said that it had existed only two weeks, and that he had had no difficulty in making water. He had had gonorrhoea frequently, but said that he had never had a stricture, and a middle-sized catheter was easily introduced into his bladder. There were very evident marks of constitutional syphilis. He was very much debilitated, and had a profuse diarrhoea. The treatment was stimulating and supporting, no specific or local remedies being used. He died from exhaustion, twelve days after entering the house.

*Autopsy*—twelve hours after death. A catheter was passed into the urethra, a long probe into the fistula, and they brought in contact in the bladder. Two lateral flaps were now made, the external and internal oblique muscles dissected up on each side and turned downward. The recti muscles were then divided and thrown out of the way. A careful examination now showed that the fistula passed directly backward, through the linea alba, and then turned abruptly downward, anterior to the fascia transversalis, between and posterior to the recti muscles, entering the bladder on its anterior surface, a little below its fundus. The walls of the canal were formed of the condensed tissues of the part, and were hard, firm, and resisting. On each side of the bladder, a sinus ran off along the pubic bones, for about two inches, ending in a blind and somewhat dilated extremity. Lower down, from the side of the organ, was another canal going off to the right, and terminating immediately over the obturator foramen in a cavity, which contained about three-quarters of an ounce of unhealthy, ichorous looking pus. Upon examination of the abdomen, it was found that there had been a local peritonitis, the sigmoid

flexure of the colon and some knuckles of the small intestine being adherent to the fundus of the bladder, whose walls were very much thickened and slightly sacculated. Its capacity was somewhat diminished. The mucous membrane was dark-colored, almost black, as was likewise the lining membrane of all the sinuses and the fistula running up the abdomen. The urachus was carefully examined, and was in the natural condition of adult life. The kidneys were large, soft, and fatty. The remainder of the abdominal and all the thoracic viscera were healthy.

## Hospital Reports.

JEFFERSON MEDICAL COLLEGE, }

## SURGICAL CLINIC OF PROF. GROSS.

Reported by W. W. Keen, Jr., M. D.

## Lupus Exedens.

Oct. 5. Jacob Z., æt. 71. Six years ago when drawing on a stiffly starched shirt the patient scratched his nose. The spot became sore, and soon the lupus was developed. The right ala is entirely destroyed. His constitution is pretty good.

R. Potassii iod.,	gr. v.
Hydrarg. chlor. cor.,	gr. i.
Liq. potass. arsen.,	gtt. iij.

at a dose, three times a day.

R. Unguent. hydrarg. nit.,	ʒij.
Cerat. simp.,	ʒvj.
Opii pulv.,	gr. xx.

Apply locally, three times a day.

## Onychia Maligna.

Oct. 8. Eliza L., æt. 3. Three months ago a man trod on this child's thumb, and afterward it was injured in cracking a peach-stone. The nail and distal phalanx are now completely gone. The discharge is thin, sanious and offensive. Her bowels are in good condition; sleeps and eats well. She is perfectly healthy otherwise, but rather pale.

R. Hydrarg. chlor. mit.,	gr. ij.
Jalapæ pulv.,	gr. iij.

in one powder.

R. Hydrarg. chlor. cor.,	gr. 1-15.
Aquæ dest.,	f.ʒj.

three times a day.

R. Plumb. acet.,	ʒij.
Tinct. opii,	f.ʒss.
Aquæ,	Oss. M.

S. Apply on a slippery elm poultice.

## Popliteal Aneurism.—Forced Flexion.

John R., German, æt. 45, foundry-man. Three months ago, while unloading a wagon, something

seemed to give way, and he then perceived a swelling in the popliteal space of the right leg. When partially flexed there is pulsation, but when in complete extension, or complete flexion, it is absent; it is controlled by pressure on the femoral artery. The aneurismal thrill is distinctly perceived, but it is faint. There is no discoloration. I placed the limb in strongly forced flexion, and retained it by bandages, having also bandaged the limb from the toes to the thigh. I also gave *verat. virid.*, *gtt. v.*, four times a day.

Oct. 9. Coldness and numbness in the posterior part of the leg, and in the toes.

Oct. 15. The pulsation ceased this morning. The tumor is somewhat diminished in size.

Oct. 22. The patient dismissed cured. There has been no return of pulsation; the size of the tumor is greatly lessened. During the treatment he has been allowed no meat, and was purged pretty freely.

#### Abscess in the Lumbar Region.

Oct. 8. John Waldamon, *æt.* 24, combmaker. About January 1st, perceived a small swelling in the left lumbar region, which was sometimes accompanied with occasional jumping pain. It is now 10 to 11 inches in diameter, with increased temperature, and distinct fluctuation in all parts. On examination with the exploring needle, the contents of the tumor were found to be pus.

Oct. 16. His general health, sleep and appetite are good. His family is not strumous. The tumor is tolerant of manipulation, and is usually not the seat of any pain. Its surface is smooth, not nodulated. The subcutaneous veins are enlarged. On puncturing with a trocar, about *f. 3xvj* of a thick yellowish pus was evacuated, being the larger portion of the contents of the abscess, and then adhesive plaster, a large compress, covering the whole tumor, and a roller bandage were applied.

Oct. 23. No pain; good appetite. The tumor is fuller than it was a week ago, but covers no larger space. No fever, nor chills.

Punctured it again subcutaneously by means of a trocar, and evacuated about *f. 3xvj* more of the same kind of pus, mingled with a little blood.

#### Hare-lip and Fissure of the Palate—both double.

Oct. 12. Ellsworth, 35 hours old, has hare-lip on each side, at the ala of the nose, the middle piece projecting horizontally. There is also a fissure in the palate and alveolar processes of the superior maxillary, on each side of the septum narium, one-fourth of an inch wide, the nasal fossæ communicating freely, and in their whole

extent, with the buccal cavity. This fissure meets another running at right angles with it, between the maxilla and the palate bones, and the palate is cleft also.

*Treatment.* Compressor to the middle fragment,—a sort of labial truss—ordered, and a future operation.

Dec. 14. The boy is brought back in good health. It has been "brought up by hand." The parts are in the same condition, the labial truss having never been applied. I pared and approximated by the hare-lip suture, the fissure in the lip on the right side, and ordered free and good nourishment, and good care. The operation will be completed on the left side in the future.

#### Caries and Necrosis of the Foot.

Oct. 12. Jas. C., German, *æt.* 25, shoemaker. His general health is poor. Eight months ago the disease began without any assignable cause, on the outside of the left foot, below and in front of the malleolus. There is now an ulcer there, with heat, discoloration and swelling, and an abscess in front of and below the internal malleolus. The whole limb is atrophied. On probing, dead bone was readily felt, and a large part of the calcis and astragalus extracted, opening into the ankle-joint.

Oct. 16. His health is far better, by reason of the tonic treatment instituted, of iron and quinine. He sleeps better; appetite is good, and he has no pain. The wound is not so tender as it was, and the openings have closed to a large extent. On probing, more dead bone was felt, especially externally, running pretty far back in the calcis. Possibly the palliative treatment may save his foot.

Feb. 26. He was lost sight of till this date, when he returned, having made an admirable recovery. The ankle is somewhat stiff, but he can walk readily, with only a cane. The wound is almost entirely healed. The cause of it, as has been since ascertained, is a syphilitic taint of the system.

#### Syphilitic Sore Throat.

1. Oct. 16. Bernard K., *æt.* 39. The disease has existed for 10 months, and the ulceration has now destroyed the right tonsil and that side of the arch of the soft palate. The ulcer has a foul excavated appearance, with several black spots on the surface. There are no swellings on the bones. By his report his habits were not such as to lead to this form of disease. Applied locally by a mop as follows:

R. *Liq. hydrarg. pernitrat.*, *f. ʒi.*  
*Aquæ*, *f. ʒviij. M.*

Oct. 19. On further questioning it seems that he has great pain, especially at night, so that he cannot sleep. His hair has come out largely since he has had the disease. He has pain on swallowing. There is great improvement in the ulcer. He has less pain, and the foul appearance is much diminished.

Apply locally as above hydrarg. pernit. and

R. Potassii iodidi, gr. viij.  
Hydrarg. chlorid. corros., gr. ʒ.

S. At a dose three times daily. M.

2. Oct. 19. John F., æt. 26. Three years ago he had a severe attack of fever and ague, when he took large quantities of calomel. For some three months now his mouth has been sore; he sleeps poorly on account of the pain which is severe at night: has no pain on swallowing; has not had any symptoms of syphilis to his knowledge. His hair has fallen off to a great extent. The uvula is gone and the soft palate fissured widely, nearly to its base.

He was purged; touched in the mouth with hydrarg. pernitrat, and took the following:

R. Potassii iodidi, gr. viij.  
Hydrarg. chlor. cor., gr. ʒ. M.

At a dose three times a day.

#### Syphilitic Bubo.

Oct. 19. John H., æt. 27, married—trunkmaker, has a swelling over the line of Poupart's ligament near the pubic symphysis. It is discolored, hard, and with some little fluctuation. He had communication in Washington 8 weeks ago, and 4 weeks afterward the bubo began. He had, so far as he knows, no sore whatever on or about the penis previous to the bubo. He had not had any injury about the legs or feet.

The bubo was opened, and he was treated as follows:

R. Plumbi acetat, ʒi.  
Tinct. Opii, f. ʒj.  
Aqua, Oij. M.

S. Apply locally.

R. Antim. et potass. tart., gr. ʒ.  
Magnesie sulphat., ʒ. ʒ.  
Tinct. verat. viridis, gtt. iij. M.

S. Take at a dose.

#### Adhesions from Scald.

Oct. 23. Isaac M., æt. 44. He was scalded by the collapsing of a flue, on March 16th. The cicatrix extends from just below the right shoulder to near the ilium, both in front and somewhat behind and over the arm, in the region of the elbow. The right arm is bound to the chest by the contracting of the cicatrix for some three inches, both by the front and by the back wall of the axilla.

The adhesions were cut and the arm rendered

free in its motions as far as the partial ankylosis permitted, after so long rest. It was dressed with ung. zinc. ox., and a splint to retain it fully at right angles to the trunk.

Oct. 30. Dressed twice daily now with simple cerate and retained at a right angle.

Nov. 5. Discharged, the wound almost entirely healed, granulation and cicatrization going rapidly on. It has been dressed only with simple cerate on patent lint.

Nov. 20. Nearly healed.

#### Abdominal Tumor.

(Probably an enlarged ganglion or enlarged ganglia of the Mesentery.)

Oct. 23. Jas. Kirk, æt. 2. An unhealthy anæmic child, with scarcely any color even in his lips, with no appetite and very thin. He has had no blow or hurt of any kind on the abdomen, nor any attack of intermittent fever. The tumor was first noticed in May last. When first seen by Dr. Wm. H. PANCOAST, two months since, the tumor was far smaller. It then existed only on the left side, and was nodulated on palpation. Now the tumor reaches from the umbilicus to the left iliac region. It is solid by percussion, that portion about the umbilicus presenting rather distinct evidences of fluid. It extends anteriorly in the median line, almost from the ensiform cartilage to the pubes, and back to the spine, on the left side. In the region of the spleen it is nodulated, and very hard—as it is all over that neighborhood. It is remarkably convex, and the abdominal walls by its size, and possibly some water in the peritoneum, are stretched very tensely. There is also tumefaction and œdema of the feet.

Treat by tonics, punch and sedatives.

## EDITORIAL DEPARTMENT.

### Periscope.

#### Immediate Treatment of Fracture by Fixed Apparatus.

In the *Dublin Medical Journal* is a valuable paper, by Mr. JOLLIFFE TUFNEL, upon the method of treating fractures as practised in the different hospitals of the United Kingdom. Of the various materials employed for the purpose of making fixed apparatus for the treatment of fracture of the leg—it appears that starch, with and without side splints, is employed in fifty-seven hospitals out of ninety—but in these only seven resort to it immediately or at a very early day.

"Good reasons must necessarily exist for this line of practice to be so general and uniform, and

the danger or risk from constriction of the limb by the starch bandage, as ordinarily employed, must be regarded as the cause of its primary rejection, and employment only after swelling has subsided, or partial union of the bones taken place. For many years in hospital and private practice, but especially in the latter, Dr. TUFNEL has been in the habit of using a modification of the fixed apparatus, such as is not described in any work, or otherwise generally known."

The writer, therefore, enters into a detailed history of its preparation, which is so simple and so well adapted for emergencies, that we present his remarks entire.

"The material required for forming these splints is very generally available, consisting only of lint or old linen for the inner lining; strips of the same, torn three inches in width, and long enough to reach from the head of the tibia to the sole of the foot. To make the splint itself:—The white of eight eggs and half-a-pound of flour for the fixing substance. These are all that are required; each and every one of which is to be procured in almost the poorest home.

"The main feature of difference between this mode of setting fractures and every other kind of fixed apparatus, is the construction of the splint in two halves, and the applying of the bandage, which is to form the same lengthwise, instead of circularly, thus avoiding all possible sources of constriction of the limb.

"Supposing, then, that the fracture has occurred in a city, or wherever else the most desirable materials are to be procured, the surgeon sends for the following, and places them beside him before interfering with the patient, further than to strip him of his clothes and lay him upon a properly prepared bed, upon the side opposite to the fractured limb—the leg itself being supported easily on a pillow—and the fracture, as far as possible, reduced. The articles required are— a table for spreading the bandages upon, a wash-hand and small sharp-edged basin, eight eggs, and half-a-pound of flour, as before stated; a large iron or silver spoon, a large knife, three calico roller bandages, half-a-yard of Taylor's lint, and some hot water. The lint is first thrown upon the limb, from the knee to the sole of the foot, and cut roughly into the outline of the limb, of a size sufficient to tuck under the sole at the bottom, and from side to side of the leg.

"This lint is placed in the large basin, and hot water poured upon it, so as to saturate it completely, and whilst dripping, and without being wrung, it is lifted out and put upon the outer side of the limb of the patient, who is lying with the leg bent, and exactly in the same position as recommended by PORR, with this difference, that the limb is on the inner instead of its outer side, by this measure insuring subsequent inversion instead of eversion of the foot. Extension and counter-extension are now made by the hands of two assistants, and the fracture set by the surgeon, who models the wet lint on to the limb with his hands, so that it is as closely applied as a stocking would be; any starting or spasm of the muscles is prevented by the assistants just laying their hands steadily upon the limb. The sur-

geon now breaks the eggs upon the sharp edge of the small basin, drops the yolks into it, and the albumen into the other, having first thrown out the hot water which was previously in it for wetting the lint; he then takes sufficient flour, according to the size of the eggs, and with the spoon beats it and the albumen into a homogenous mass of the consistence of pancake. He next measures with the end of a roller the length of the limb, from the knee to the centre of the sole, and placing the forefinger of his left hand, pointing upwards, and the forefinger of an assistant opposite to him at the required distance, he winds the whole of the three roller bandages, one after the other, around the fingers, and then with a scissors divides them at either end; thus in a few moments obtaining the strips necessary for the splint, all of exactly the same and proper length. Each of these tails is now spread thickly with the egg and flour upon one side, and as spread, folded double, with the plastered surfaces opposed and laid aside. The object of this is to keep them moist, and in hot weather from drying; as soon as they are all done the surgeon commences, and having them handed to him one by one, he lays them on the limb, moulding them to it, layer after layer, from the innermost portion of the tibia within to the farthest point of the calf of the leg that can be reached behind, covering accurately the instep, the toes, sole, and heel, and not leaving a wrinkle or crease. The large knife which has previously been used for spreading the bandages with egg and flour, is now employed as a spatula, and taking a few of the tails of bandages which have been left unspread, these are passed beneath the limb, and one after the other brought around it so as to confine the wet tails to the leg, and not allow them to be raised from off it as they otherwise would be by the expansion of the heated air which becomes rarified within.

"The limb is now left uncovered till next day; if covered the splint will not dry, but retains a kind of pasty condition, whilst if exposed to the air for twenty-four hours it will be as firm and as light as cardboard on the limb. Upon the succeeding day the patient turns over upon his opposite hip, and the same proceeding is repeated exactly as before, taking care that the lint lining goes well over the limb, so as to be in advance everywhere of the plastered strips, which if allowed to come in contact with the other portion of the splint would intimately adhere to it, and cause difficulty in separation of the halves; this too is allowed to dry. Upon the succeeding morning the two half splints, or only the second half, as the surgeon may think fit, are removed, the edges trimmed neatly with scissors, the second half overlapping the other by at least half-an-inch, ensuring correctness, whilst all pinching of the integument is prevented; when the roller bandage is subsequently put on, the two portions of the splint, in fact, should glide, as it were, the one over the other. Nothing more remains to be done; a couple of fillets to confine them to the limb, or a lightly applied roller bandage are sufficient, and the patient may now lie in bed with his leg straight or bent, as he wishes, raised up upon a pillow, or slung, whichever way he fancies or feels it easiest; and after a few days may get up,

supporting the extremity by a sling round his neck.

"Subsequently, when the patients come to exercise and move about, and the size of the limb to decrease, the splints may be brushed over inside with hot paste (as also round the edges), and a piece of chamois leather, previously cut to the size and shape, moulded in to form a softer and additional lining.

"These splints are very light, weighing, when dry, but a few ounces, yet from their extreme accuracy in fitting the limb, and evenness of pressure, most surprisingly strong.

"The same material I also employ in the immediate treatment of fracture of the fibula, and, at a later period, in fracture of the thigh, used in the circular form; put on, however, in tails, imbricated one over the other, and not as a roller bandage. Thus applied it is, of course, necessary to slit it up prior to removal, and for this purpose I employ a blunt gorget with the handle reversed, using it as an ordinary director, and cutting down upon the grooved steel with any sharp pointed knife. SMITH'S pliers and all other kinds of scissors and dividers I have tried and found objectionable in use, causing more or less annoyance and pain to the patient from the pressure exercised upon the soft parts in making the division of the harder external case, whereas the gorget slips along upon the skin, whilst its broad, round, and polished surface, is cut down upon without the slightest motion or pressure, and is not noticed hardly by the individual.

"Such is the mode which I myself now employ, and such the form of proceeding in reference to fixed apparatus that I think will, upon experience, be found to be the most satisfactory to the practising surgeon; but, as so many other modes of putting up fractures in starch, gum and chalk, gum, etc., etc., have been referred to in the table of hospital practice here given, I would add a few words in reference to each, and my experience as to the advantages and disadvantages of the several plans.

"The condition of one individual with a fracture of the leg, put up in a properly fitting and well applied fixed apparatus is so incomparably superior to that of another with a similar fracture, treated in any other kind of splint, that whatever can tend to the removal of objections, needs, I feel assured, no apology. The sufferer with fracture of both bones of the leg, set in tin, wooden, or other ordinary splints, is, for a considerable time after the receipt of the injury, dependent, and unable to do anything for himself; the other is comparatively independent: and fractures treated in the way described, of the tibia only, of the fibula only, and both bones together, have turned out so satisfactory that I cannot but speak strongly in its favor. The union has been firmer, in the same number of weeks, than under any other plan. Why it should be so is evident from two reasons—firstly, the mobility of the fractured ends of the bone is reduced to nil, and the circulation of the limb is normally maintained—no circular constriction existing to produce venous engorgement, and interfere with arterial supply. The egg and flour splint, made as described, has this great advantage also, and

whilst being considerably firmer and lighter than the starch or other material, as ordinarily applied, it requires no padding for the protection of osseous prominences and projections. In the common mode of applying a starch bandage every point must be well protected by tow or cotton, or some other soft defence, and the heel, tendo Achillis, or instep, the metatarsal bone of the little toe and the ball of the great, the spine of the tibia, its tuberosity, the head of the fibula, the patella, and condyles of the femur, all require padding to prevent ulceration, whilst the longitudinal splint receives its own indentations so accurately as to press unduly on no spot, and retains its position *in situ* so completely as to maintain its exact position when once applied, thus obviating or rather preventing the restlessness which accrues from pain caused by the pressure of a splint upon a projecting point of bone, and which so often irritates the patient and causes him to undo and loosen the fracture for the purpose of obtaining relief. Its stiffness upon drying, too, is such as to obviate the necessity of resorting to any supplemental support from pasteboard, gutta percha, whalebone, or any other of the stiffening matters usually employed as adjuncts to starch, and which all, more or less, press upon the limb. White of egg and flour, therefore, used as directed, are the substances that, in combination, seem to be most desirable in practice—they are everywhere obtainable, and at a very trifling cost."

#### Pyæmia.

In a discussion on Pyæmia which took place at the New York Academy of Medicine, (*New York Medical Journal*), Dr. KRAKOWITZ recapitulates the essence of his remarks as follows:

1. Pyæmia is not the result of the admixture of pus with the blood.
2. The metastatic abscesses produced by emboli from venous thrombi are not pyæmia.
3. Pyæmia and septicæmia are different diseases.
4. Both occur frequently together in the same individual.
5. Pyæmia is an infectious, specific disease.
6. The infectious substance is either produced in the diseased individual or
7. By pyæmic miasma generated outside of the patient.
8. The name of pyæmia should be abandoned, and that of purulent diathesis substituted. L.

#### Diabetes cured by Seton.

Dr. BUTTURA relates to the Academy of Sciences (through M. BERNARD), a case of diabetes cured by the application of a seton to the neck. A mason, 38 years of age, had long suffered from the disease; he was very wasted and feeble, his thirst was extreme, and his urine abundant. The different usual methods of cure were tried in vain; and at the end of eight months trial of them, a large seton was put in his neck. When suppuration was established, the sugar in the urine gradually diminished. At the end of six months, not a trace of sugar could be found. The man returned to his work; and now for a year has remained perfectly well.—*Brit. Jour.*

## Rachitisme.

The early diagnosis of hydrocephalus is one of extreme difficulty; indeed, in early years we may say it is impossible, as there is another disease of infancy with augmentation of the size of the head, which may be readily mistaken for it. The disease is known as Rachitisme. Dr. FISHER, of Boston, sometime ago proposed to diagnose hydrocephalus from this affection by a *bruit de soufflé* heard by auscultation over the anterior fontanel; but BILLIET and MITHGIN found it in the rachitic also, while BOUCHUT found it in healthy children. So BOUCHUT sought a new differential sign, and found it by the use of the ophthalmoscope. Dr. HAYNES, a Paris correspondent of the *St. Louis Medical Journal*, says, that BOUCHUT considers that in chronic hydrocephalus, the circulation and the nutrition of the deep-seated textures of the eye undergo modifications that explain the internal or external compression of the brain by the serosity contained within the cavity of the skull; and these modifications, appreciated by means of the ophthalmoscope, are the important signs of chronic hydrocephalus. In proportion, as the serosity accumulates, and as the compression of the brain increases, the following appearances are presented by the internal membranes of the eye:

1st. A greater vascularity of the papilla and of the retina, with dilatation of the veins, their color being normal.

2d. An augmentation in the number of the veins of the retina.

3d. A serous infiltration, partial or complete, of the papilla.

4th. An atrophy of the retina and its vessels.

5th. An atrophy more or less, pronounced sometimes complete, of the optic nerve.

These lesions vary according to the duration of the disease, and according to the quantity of the serous effusion. He says that they result either from the compression of the sinuses, which prevents the blood from re-entering the cavernous sinus, and this brings about an edema of the retina; or from the compression of the optic nerves in the interior of the cranium. They do not exercise an equal influence upon vision; for, except there be a complete atrophy of the optic nerve, the child would be able to distinguish the objects which are present. But that which is most important is, that these lesions do not exist in the rachitic. In twenty-two cases of rachitisme that M. BOUCHUT has examined, children from the age of three to five years, and who presented an abnormal appearance in the magnitude of the head, with persistence of the anterior fontanel, and with other marks of rachitisme upon the body, some having had internal convulsions, or epilepsy pleurilis, and others not having had any nervous affections whatever, the bottom of the eye presented a perfectly healthy appearance, there being no disorders either in the papilla or retina.

In consequence of the facts, he concludes that the ophthalmoscope permits the distinction of diagnosis of chronic hydrocephalus and of rachitisme of the bones of the head; for in the former case

there are the troubles in the bottom of the eye which do not exist in the latter.

## Effectual Remedy for Prolapsus Recti.

A simple palliative remedy for this troublesome complaint is suggested by Dr. ABBOTT of Boston, as published in the *Boston Med. and Surg. Journal*. After the bowels are evacuated a strip of isinglass is to be applied lengthwise between the nates, completely across the anus, and extending a little beyond it each way. The plaster spread on cotton cloth is preferred, as more substantial, than that spread on silk. The prolapsed rectum is, of course, first reduced, the nates slightly separated, and the plaster applied as indicated and held until it adheres firmly. When properly adjusted it will in most instances remain until the next evacuation of the bowels, keeping up the intestine perfectly, so that the wearer is entirely unconscious of his infirmity. Occasionally in violent exercise, or during the hottest weather, it may become displaced and require renewal. Under such circumstances it is well to apply a second strip of plaster of the same size over the first, to give it more body and firmness. The plaster need only be of the width of the space between the nates, and long enough to fairly cross the sphincter; a piece from an inch and a half to two inches long, by three quarters of an inch to an inch wide, is usually large enough. If too long or too wide, the ends or edges are apt to get turned up in walking and the plaster to be displaced.

Dr. ABBOTT relates several cases in support of this simple but, as he claims, very efficient treatment. L.

## Influence of a Long Course of Nitric Acid in Reducing the Enlargement of the Liver and Spleen that sometimes results from the Syphilitic Cachexy.

The enlargement which Dr. BUDD refers to, is that which has been latterly described as due to amyloid degeneration. The most striking examples of it are seen in the victims of scrofulous or syphilitic caries. Three cases are related in which m. xx of dilute nitric acid were taken ter die for a period varying from fifteen to four months, without inducing excessive acidity of the urine or any inconvenience attributable to undue acidity of the stomach. Sarsaparilla, iron, or bark, were conjoined with the acid. The result of his experience leads BUDD to conclude that when the liver and spleen have become diseased in the manner specified, in sequel to protracted syphilitic disease of the bones, nitric acid, long taken, has a remarkable influence in gradually effecting the removal of the morbid deposit to which these organs owe their increased size, restoring the organs to a more healthy condition, and improving the general health. The cases further afford strong presumption that nitric acid, taken earlier, would prevent the disease of the abdominal glands, which, when established, it tends to remedy. It is, however, essential that the disease of the bone, on which the enlargement of the liver and spleen is consequent, should be arrested; if this cannot be effected, the malady, though even then its course may be retarded, usually makes

progress, and life is cut short by renal disease, which very often accompanies that of the liver and spleen. BUDD suggests that a long course of nitric acid may have influence in remedying and preventing glandular enlargements, chronic ulcers, and other forms of scrofulous disease. He is persuaded that in tuberculous disease of the lung, nitro-muriatic acid, long taken, tends to prevent the further deposit of tubercle.—*Sydenham Society's Year-Book*, 1863.

**On the Local Employment of Iodine in its Pure State in the treatment of Inflamed Scrofulous Cervical Glands, and of Inflamed Inguinal Glands from Syphilis.**

Under the above title, Dr. PRIEUR has addressed to the Academy, says the *Brit. and For. Med.-Chir. Rev.*, a memoir of which M. RICORD reports in favorable terms. The proceeding consists in applying to the enlarged glands laminae of iodine, enclosed in a layer of wadding, where they are rapidly vaporized under the influence of heat. The iodine ought to be spread as uniformly as possible, over the half to a third, or a quarter, of the thickness of the wadding which should be covered or fringed with a leaf of gelatine, the circumference of which adheres to the skin, and concentrates the iodine vapours to a determinate point. The apparatus is left in its place for from twenty-four to forty-eight hours, and the result is a phlyctena filled with a thick purulent, or bloody serosity. Dr. PRIEUR states that he has treated in ten years about one hundred and twenty patients by this plan, and has thus caused the disappearance of more than three hundred swellings. M. RICORD, in reporting on the paper regrets that in speaking of the inguinal swellings, the author of the memoir has not specified whether he treated inflamed glands symptomatic of infecting chancre, or simply buboes sympathetic of the soft chancre, or even virulent buboes. But the inguinal region, like the neck, is the chosen seat of strumous swellings, and often a chancre or hemorrhagia is only the occasion of the development of these enlargements. M. RICORD has himself tried the plan of Dr. PRIEUR in eight cases of well-marked scrofulous adenitis, and the results he has obtained have been confirmatory of the success of the treatment.

**Can Poisoning occur and the Poison disappear?**

On this point M. TARDIEU is of opinion that a poison, almost in its totality, may be vomited and expelled the organism; but it is very rare, and nearly impossible, if the patient live, for a certain portion of the poison not to be absorbed and excreted so as to be detected by analysis in the excretions; it is also rare, if the patient die, for no portion of the poison to be detectable in the various organs into which it would be carried by the circulation. The true question consists in asking—do traces of poison remain in the living body for a determinate period, or does the poison remain indefinitely in the dead body? On this last point the author states that mineral substances resist indefinitely, but they do not escape transformation; some are fixed in such stable combination that chemistry will always detect their presence. Others on the contrary, by being

rendered soluble, are exposed to the possibility of being carried away from the debris of the body in the process of decomposition. Ammonia, which is produced in putrefaction, is the basis of these combinations; but the slowness with which the combinations form, and the still longer time they require for their complete dissolution, under the ordinary conditions of burial, leaves room to say that even after several years, and so long as any part of the body remains, chemistry can find the traces of mineral poisons in exhumed remains. Organic substances, or at least the greater part of those used as poisonous agents, notably the vegetable alkaloids, resist with remarkable fixity and for a very long period. At the same time science cannot say that the organic series are as fixed as the inorganic.—*Brit. and For. Med.-Chir. Rev.*, April, 1865.

## Reviews and Book Notices.

**A Treatise on Gonorrhoea and Syphilis.** By SILAS DURKEE, M. D., Consulting Surgeon of the Boston City Hospital; Fellow of the Massachusetts Medical Society; Member of the Boston Society for Medical Improvement; Honorary Member of the Medical Society of the State of New York; Fellow of the American Academy of Arts and Sciences, etc. Second Edition, revised and enlarged, with eight colored illustrations. Philadelphia: Lindsay and Blakiston, 1864. Price \$4.75.

[SECOND NOTICE.]

With the author of this book we have had a pleasant acquaintance for many years; and, in addition to this, having given special attention to *diseases of the skin*, no small share of which arise from the taint from the diseases which Dr. DURKEE has so ably given the pathology and treatment of in this book, we are able personally to speak in high commendation of this work. From an experience of more than a quarter of a century in this whole class of cutaneous diseases, the writer is prepared to say that Dr. D. has exhibited an unusual amount of research, and advanced the most correct views of the cause, continuance, treatment, and cure of these uncomfortable, and often dangerous diseases, that we have met with in all the books that have emanated from the profession upon this subject. The author has been most laborious in his investigation, and appears to have had but one grand object in view, to wit, to elucidate *the truth*, by a faithful and conscientious record of facts; drawn both from clinical experience, and the testimony of the most eminent surgeons who have investigated the subject. C.

The Institute of France, on the recommendation of the Academy of Sciences, given its biennial prize of 20,000 francs (instituted by the Emperor) to M. WURTZ, Professor of Chemistry.

## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SEPTEMBER 30, 1865.

## QUARANTINE AND COMMERCE.

Not only New York, but every commercial city, is interested in the statement that, at present, "sanitary and commercial interests are apparently antagonistic; and it is of vital importance that they should be harmonized." This assertion we find in a communication of Governor FENTON's, transmitting to the New York Legislature a Report of Commissioners of Quarantine appointed according to statute in 1864. So much importance attaches to the subject, and to the matter of the document itself, that we propose to devote some space to remarks upon it.

The history of quarantine illustrates singularly the confusion and disappointment which may follow the enactment of positive regulations upon a basis of uncertain knowledge and unsettled ideas. Only of late, for example, has there begun to be any appreciation of "the monstrous inconsistency and fatuity of quarantining vessels from distant ports, on the mere suspicion of infection, while from the frequently and unquestionably infected port of quarantine, we despatch vessels, crowded with passengers, to the most populous city in the country, but six miles distant, every hour in the day."\* But the most fatal absurdity has been, to maintain such a system as almost of necessity, to make of the quarantine ground an infected locality, an emanating centre of pestilence, when, of course, its whole intention was to diminish instead of intensifying the morbid influence.

Examples of this are familiar in New York, as well as elsewhere. In 1799, 1803, 1821-22, and 1848, the vicinity of vessels infected with yellow fever to the shore, caused the extension of the disease to the inhabitants residing there. But in 1856, when some two hundred vessels accumulated in the bay, and were, according to regulation, detained together at quarantine for 30 days, both shores became infected, and more than 600 persons were attacked with the fever, of whom more than one-half died. Can it be wondered that, when in 1858, a similar occurrence, though upon a less destructive scale, alarmed the inhabitants, they should be excited to violent opposition to the whole system of quarantine in their neighborhood, as shown by the subsequent burning of the Marine Hospital?

It is very satisfactory, therefore, to discern in the Report of this Commission, as we have been able to do before in the proceedings of the Quarantine and Sanitary Conventions, promise of definite principles, and practical regulations, which may essentially relieve these apprehensions, and bring commerce and public health, if not to a complete agreement, at least to an entirely amicable compromise. That some improvement has been already effected, the following passage from the report of Dr. SWINBURNE, Health Officer, to the Commissioners above referred to, will show:

"Except 1856, no period has been fraught with more danger to the port and harbor of New York from infection than 1864. Not only have the public at large, therefore, reason to render thanks to a merciful Providence for their successful preservation from disease, through the instrumentality of the regulations at Quarantine; but our merchants also have ample reason to congratulate themselves that these regulations have been enforced in such manner as to cause but slight disturbance to their commercial arrangements, when nearly every West Indian and many of our domestic ports were seriously infected." P. 31.

What are those principles whose establishment is so hopeful? Space does not allow us to do more than indicate some of them, most briefly. First;—is yellow fever personally contagious? An answer to this question is most cogently given, on an ample basis of undeniable facts, in the communication of Dr. THEODORE WALSER, attached to the Report of this Commission. Dr. WALSER has long been connected with the Quarantine department, and has made intelligent use of his opportunities. His statement is, that the records of quarantine hospitals everywhere establish the non-contagiousness of yellow fever from person to person; that the poison is *not* engendered in the bodies of the sick, so as to be by them communicated to the well. The true theory, or at least most probable hypothesis of its infection, long ago advocated by some authors upon the subject, is by Dr. WALSER well supported, under the name of the "cryptogamic theory;" namely, that the specific cause of the disease is a germ or germs, probably a fungoid microphyte, requiring certain material and atmospheric conditions for its existence and propagation, and, with them transportable; that such germs, brought from a distance by the persistence of those vital conditions, may meet with the same on a larger or smaller scale in a new locality, and thus be diffused, although always with limitations.

Secondly, by *what means* is the transportation of yellow fever possible? Dr. WALSER says, only

\* Dr. WALSER, Deputy Health Officer, in Report of Commissioners of Quarantine to the N. Y. Legislature, p. 87.

outside of the sub-tropical region, by ships or their contents. Thirdly, is it the ship only, or its cargo, or baggage, or other *fomites*, which may thus act? On the same record, we find evidence for the conclusion, that *with great rarity only* does or can a cargo, or any part of it, or any clothing or other fomites, give rise even to the *most limited* local infection with this disease.

Fourthly, what are the tests by which the infection of a vessel may be ascertained? They are two; the occurrence of the disease on board during the voyage, too long after leaving any infected port to be ascribed to the latter; and, in the absence of this, the breaking out of the disease in persons brought into contact with the vessel in discharging its cargo and exposing its foulest parts. As to the first of these tests, it is an important contribution of the observations of Dr. WALSER and his coadjutors, to have fixed the time of incubation of yellow fever, after exposure, at from five to seven days.

From these premises we find deduced, in the Report of the New York Commission, as suggested by the Health Officer, Dr. SWINBURNE, very definite measures of prevention and security from infection, applicable anywhere, in regard not only to yellow fever, but also to typhus and small-pox.

Of the plan thus proposed, the most important part is, the erection of two warehouses, for the discharge of cargoes from vessels coming from infected ports; the one remote from the city, and as far as possible from any populated shore, for vessels known to be infected; the other more near and accessible, to receive cargoes from those not known upon arrival to be infected, but suspected only because of their having left infected ports. The former, only, require the usual prolonged detention and thorough purification at quarantine; their passengers, sick and well, being removed; for the sick, the floating hospital being recommended as, upon trial, having proved the best. A much shorter detention, for inspection merely, will suffice for those vessels which are only suspected of infection; of which, as was above said, the discharge of their cargoes will afford a final and sufficient test. If no one, thus exposed to the atmosphere of a vessel, contracts disease from it, it may be safely admitted to *pratique*. As statistics show that vessels known to be infected form but a small per centage of those arriving from infected ports, the nearer warehouse, for the latter class only, must be much the largest.

We hail the proposal and acceptance of these measures, as a great step in the right direction of practical reform in quarantine. Although popu-

lar prejudice, slow to be disabused of the fear of contagion, especially so long as the medical profession is not yet entirely rid of it, may, for a time, interpose serious obstacles, we believe the time to be now not far distant, when the much needed harmony between quarantine and commerce may be obtained.

## Notes and Comments.

### The Philadelphia School of Anatomy.

This long established and popular school for the study of Practical Anatomy and Surgery, has passed into the hands of Dr. R. S. SUTTON, who will commence a vigorous winter course of lectures on the 10th of October. The dissecting rooms have been open for some time, with encouraging classes. A great many of our profession have established a permanent reputation in this school—and Dr. SUTTON brings into it, education, ability and industry, which we doubt not will insure eminent present success, and ultimate lasting fame.

### The Wills Ophthalmic Hospital.

The Clinical Course for the approaching session will be commenced by Dr. R. J. LEVIS on Thursday, October 5th, at 12, M. Clinics will be continued every Thursday at that hour.

The domain of this important surgical specialty has, within the past few years, been greatly extended. The revelations of the ophthalmoscope make accurate the diagnosis of diseases of the deep structures of the eye, and render amenable to treatment some hitherto obscure and hopeless morbid conditions. Operative ophthalmic surgery, particularly with reference to the treatment of cataract and glaucoma, has made substantial advancement. We earnestly commend to medical practitioners and students, the importance of attention to the practical opportunities presented for the study of the surgery of the eye in this excellent institution.

### Premium Offered.

Dr. T. C. BRINSMADE, of Troy, N. Y., offers a premium of \$100 for the best essay on Medical and Vital Statistics, with a plan for Hospital Reports and Records of Private Practice, and a draft of a Registration Law. The essay is to be handed to the Committee of the New York State Medical Society on Prize Essays by the 15th of December next.

## News and Miscellany.

### Cholera in Italy, France, Malta, etc.

The following extracts will show the progress of the cholera.

Late cholera accounts from Italy are: Ancona, 22d, 26 new cases and 28 deaths; San Severo, 22d, 98 cases and 56 deaths; San Nicandro, 22d, 11 cases and 10 deaths; Apricena, 21st, 3 cases and 1 death; Torre Maggiore, 21st, 1 case and no death; Poggio Imperiale, 20th, 1 case and 1 death. Cases of cholera are again reported at Marseilles and Lyons.

The Italian papers report only 21 cases of cholera at Ancona on the 23d, and two deaths, but there were 17 more deaths of cases from previous days. At San Severo it was worse on the same day—69 cases and 44 deaths. At San Nicandro, 8 cases and 5 deaths; in two or three other places a single case, but the malady, upon the whole, seems decidedly on the decrease in Italy.

The cholera seems stationary at Marseilles. On the 26th there were 50 deaths, 28 from cholera. During the thirty-four days that the cholera has been remarked the entire number of deaths from that cause has only been 330, an insignificant proportion in a population of 500,000. In the commencement, nine cases in ten of those treated in the hospitals terminated fatally, and now eight in ten recover.

In Malta the cholera has somewhat decreased during the last few days. Yesterday there were only four attacks, and no deaths, in Valetta. It is most prevalent at present in the cities of Cospicua and Vittoriosa, on the other side of the Grand Harbor, which are very thickly populated by the lower classes, and badly drained and ventilated. It having broken out among the Second Battalion, 22d Regiment, quartered in that neighborhood, the battalion is about to be placed under canvas. Quartermaster Walter Jones of this regiment died on the 18th inst. A few cases continue to occur in other regiments. The epidemic has been particularly fatal to the women and children. The following are the cholera returns for the civil population in Malta since the date of my last letter:

	Attacks.	Deaths.
August 18.....	44	25
August 19.....	37	25
August 20.....	46	24
August 21.....	32	19
August 22.....	40	19

Sicily continues to enjoy a perfect immunity from cholera, while it has appeared in the Neapolitan provinces and other parts of Italy. The towns on the coast of Barbary have also been hitherto exempt from the disease, although cases have occurred on board ships riding out their quarantine, both at Tripoli and Tunis. The Turkish Consul has intimated that Tripoli will not admit fugitives from infected places, except they be domiciled residents at Tripoli returning there. Letters from Constantinople of the 14th inst., say that the daily deaths there from cholera amount to 1,000 in a population of about 1,000,000. At Beyrout, under date of the 13th ult., we learn that a panic had seized the people, and

nearly every one who could leave had fled. Out of a population of nearly 80,000 scarcely 20,000 remained in the town. At Jaffa, in a population of not more than 7,000 persons, there were from 50 to 60 deaths a day from cholera. The disease had also broken out in Candia.

The following are extracts from letters from Constantinople published in *The Times*.

AUG. 2.—Signs of sickness, death, and panic are multiplying fast. The spirit of fear has conquered the spirit of mammon. The Bourse is closed. The bazaars are shut up. Business is nearly at a stand-still, and the merchants have shut themselves up in their country seats. You see women unable to resist the fascination of fear looking eagerly out of their windows, and pedestrians shrinking back and putting their handkerchiefs to their noses as the coffins go past. Bodies of those scarcely dead are thrust into coffins and hastily hurried off for burial. You call at a shop. The master or one of his hands is groaning in bed. You go to visit a friend; he has just been buried. Processions of over-worked priests fill the streets and pray for the cessation of the pestilence. Five hundred at least died at Stamboul yesterday. In the papers the total number of deaths is stated to have been 320. This is wholly untrue.

AUG. 3.—Another act of the tragedy is being performed. The Sultan has given orders that all classes are to make merry, so bad brandy, raki, and Turkish music are the orders of the day. So with the unceasing tramp of the hamals, carrying the dead, the streets resound with monotonous twanging, drunken routs, and howling. For the last few days the weather has been almost unbearable. The sun rises red hot. The wind neither brings freshness nor the night coolness. In the sun the glass is at 133°, and in the coolest room in the house, 85°. At Galata it ranges from 90° to 92°. After a sleepless night, I rise with hardly strength to dress. More lying bulletins. Two hundred and seventy stated to have died before yesterday. I believe I understate the number when I say 1,000 die daily. I cannot shut my eyes to the truth. Here are two facts: The young gentleman to whom I alluded as having adopted a strongly stringent diet as a precautionary measure of safety went to make a call. Two persons had just died in the house. He rushed away to another. There were three dead there. Coming back he met the dead cart with at least 100 bodies inside. The same day an Englishman saw a number of corpses buried in an adjoining cemetery. He counted 120. I learn that six medical men had succumbed to the disease.

AUG. 4. There is the greatest difficulty in finding medical men. I had occasion to go for one yesterday, but there was none to be found in Galata for love or money. By the merest luck I met with one at Pera. The doctors are overworked and they shut themselves in, and say they are "not at home." As to myself I am as well as usual. I don't fear. I eat fruit in moderation, and bathe, in defiance of the doctors. This is a good time for making some curious studies in human nature. Some of those who have studied

Renan's book, and are convinced of the truth of his arguments, now crowd into Christian churches in abject terror, and make not very successful attempts at praying. Others who have led lives of gaiety have now assumed the garb of puritans, and denounce their fellow-sinners as the cause of the pestilence. One poor creature who had been thus assailed, I saw go past with quite a hunted look in her countenance. Every one is complaining of domestic miseries of a minor character. Servants leave and no fresh ones are to be obtained. Hamals are departing in hundreds.

Aug. 5.—The cholera has assumed most frightful proportions. Two thousand at the very least perished yesterday. The papers, of course, still conceal the truth. The chief of the municipality unblushingly avowed his right to do so. I seem to be living in the plague of London, so much do the general features of the times begin to resemble those narrated by the Pepys. The little cemetery behind us is full of corpses, buried only 15 inches under the soil, and the municipality has forbidden any more burials there. Yesterday two large barges as high as a first-floor window from the ground were taken to the Golden Horn for burial. On the same day several hundred were thrown into the Bosphorus. Medical men, whether from fear or avarice, refuse to attend the poor, and thousands perish for want of a little prompt assistance. Every one who can scrape a little money together is leaving the place, and passenger boats sink to the level of their decks with the loads of passengers.

#### Mortality in England.

##### INFANTS.

In England and Wales, during the twenty-six years ended with 1863, the deaths of 2,374,379 infants in the first year of their age were registered, of whom 1,329,287 were boys, and 1,045,092 were girls—the male deaths being 284,195 in excess of the female. Limiting the inquiry to the 10 years ended with 1860, it is found that 996,630 deaths at the same age took place; of that number, 557,213 were the deaths of boys, and 439,417 of girls. Very nearly 100,000 infants died annually, in the proportion of 56 boys to 44 girls, or thereabouts.

The following table shows that the mortality decreases rapidly after the first year of life:

	Annual mortality, per cent.	
	Males.	Females.
0 to 1.....	18.3.....	14.7.....
1 to 2.....	6.7.....	6.4.....
2 to 3.....	3.6.....	3.6.....
3 to 4.....	2.4.....	2.5.....
4 to 5.....	1.8.....	1.8.....

Whooping cough was more fatal to girls than to boys in the ratio 4,003 to 3,246. Brain diseases constitute one-sixth of the mortality of boys, and between one-sixth and one-seventh of girls. Hydrocephalus destroyed 2,915 boys to 2,162 girls; other brain diseases, 12,169 boys to 9,479 girls. From diseases of the respiratory organs, 11,296 boys and 9,499 girls per million perished yearly. Dr. FARR points out that the lungs and the brain diseases of girls are equally fatal, and during the decade 119,559 were killed by the first-named cause, and 116,300 by the second. Diseases of the digestive organs caused the deaths of 1,470 boys and 1,121 girls.

#### BOYHOOD AND GIRLHOOD.

The mortality of children between ten and fifteen years of age during the ten years was at the yearly rate of 488 per 100,000 boys, and 506 per 100,000 girls. The violent deaths of boys at this term of life is nearly five to one of the mortality from the same cause among girls. The annual rate per cent. for boys was .076, for girls, .016. Many fatal accidents occur to the boys in the mining districts. On the other hand, the girls at these ages show a greater predisposition to consumption than the boys. Upon this, Dr. FARR remarks:

"How much organization, in-door life, and compression of the chest, interfering with the free action of the breathing organs, have to do with the excess of consumption in girls, it is difficult to say. Of the salutary effects of free breathing in the open air there can be no doubt, and if they are studied, it is probable that among them will be found the reduction of the mortality by consumption from .129 to a figure nearer that of boys, .076, which is still much higher than it ought to be."

Girls suffer more deaths from fever, scarlatina, and diphtheria, than boys.

#### MANHOOD AND WOMANHOOD.

The rate of mortality of each sex at the ages of 35 to 45, and 45 to 55, is shown below:

	Deaths per 100,000 of each sex.	
	Men.	Women.
35 to 45.....	1,248.....	1,215.....
45 to 55.....	1,796.....	1,520.....

The deaths from all classes of zymotic disease among men at the age 35 to 45 were only 100. "Consumption is still the great fatal disease, to it 400, or one-third of the deaths of men are referable." The mortality of females, either in the class of zymotics, or in the brain, lung and kidney diseases, is not so high as the mortality of males from similar causes. Violent deaths carried off 115 males to 118 females. Cancer, however, for 18 men killed 59 women.

Referring to the deaths of persons of eighty-five years and upwards, Dr. FARR remarks: "The forms of disease are imperfectly developed, the symptoms are obscure, and in three-fourths of the cases the deaths are simply referred to age and natural decay, or some of the maladies which have not been inserted in the synoptical tables."

The mean annual death-rate of both sexes in all England during the decade 1851-60, was 2.2 per cent.; this was also the ratio of the decade 1841-50. The population was less dense in the earlier decade; there was one person to 2.21 acres in 1841-50, and one person to 1.96 acre in 1851-60.

#### The Ravages of War.

The books of the Government undertaker at Nashville, Tenn., show that he has buried, since that city was occupied by the national troops, 13,631 soldiers and Government employees, there being 1000 of the latter; also 8000 rebel soldiers and 10,000 contrabands and refugees.

**Electricity.**

Under this head we desire to draw attention to some plans for modification in the Bunsen battery, which were lately brought under our notice, and the results of certain experiments made in consequence.

In the first place, we here show you an apparatus constructed by T. & J. N. CHESTER, of New York, and presented by Mr. Fox, of QUEEN & Co., of this city. It is a medical coil, remarkable in the first place for its small size, but yet more for the peculiar arrangement of its battery. This consists of two little carbon cups one inch and a half in depth and the same in diameter, containing each a zinc cylinder about the size of an average thimble. For exciting liquid, water, containing a few grains of sulphate of mercury, is employed. With this the apparatus will run for several hours, giving a shock as severe as can well be endured. The apparatus is thoroughly efficient, and from its small size (measuring about 6 by 3½ by 2 inches) and its avoidance of acids, fumes, etc., very convenient. In the course of experiments made to test its efficiency, several facts were developed which we think worthy of notice.

Mr. Fox pointed out to us the circumstance that the addition of common salt increased the energy and constancy of this battery. A little reflection showed that in that case the sulphate of mercury and salt must change elements, so as to produce sulphate of soda (glauber-salt) and chloride of mercury (corrosive sublimate). These substances might therefore be substituted for those before mentioned, having the advantage that they can be obtained from any druggist, while the sulphate of mercury can only be had at certain places, not being an article in general use. It was, moreover, found on experiment that if a Bunsen cell was employed, in which the carbon element was of a porous character, (such, for example, as the common imported form manufactured by DELEUIL,) the mercury salt might be dispensed with, and the battery (charged with a solution of glauber-salt only) would give for several hours a constant current, quite sufficient to operate a medical coil with all the energy desirable. In this case not only is all inconvenience from acids and fumes avoided, but we also get rid of the poisonous and expensive mercury salt, using one harmless and cheap in the extreme, (5 cents per pound.) The necessity of using porous carbon, arises from the fact that hydrogen is liberated in the action of the battery, which would collect on the surface of a dense carbon, so directly impairing the efficiency of the couple, or by occasioning a deposit of metallic zinc in its place, (after that substance had been dissolved in the fluid,) attaining the same end quite as effectually. The porous carbon, however, absorbs this hydrogen to a wonderful extent under these conditions, as has been proved by DANIELL, GROVE, and others, and thus keeps the couple in efficient action for some hours. The oxide of zinc formed, is dissolved by the solution of sulphate of soda, which has this power when in galvanic connection, as was shown by MILLON in 1845. See his paper, *Comptes Rendus*, T. 21, page 37.

We see, therefore, that a battery thoroughly

efficient for medical purposes may be prepared by placing a cylinder of porous gas-coke within one of zinc, (which should come as near as convenient to it without touching,) and immersing both in a solution of glauber-salt.—*Journal Franklin Institute*.

**Tempest in a Teapot.**

**WARD vs. NEVISON.**—The parties to this suit are lady-doctors. Plaintiff resides in New York, and the defendant in the town of Dryden, Tompkins county, New York. The suit is brought by Mrs. Dr. WARD, (the venue being laid in New York) to recover of Mrs. Dr. NEVISON the sum of about \$200, for professional services alleged to have been performed by plaintiff for defendant, at the request and for the benefit of the latter; and a motion is now made to change the place of trial from New York to Ithaca, Tompkins county, on the ground of the convenience of witnesses. From the affidavits read before the court, it appears that the principal question which the court will be called on to decide, is whether defendant employed the plaintiff or whether her labors were voluntary and gratuitous. It seems, that for about three months in the summer of 1864, the plaintiff attended and performed daily professional duty at the plaintiff's institution at Dryden, and for this she claims the sum above named. Defendant does not deny the allegation as to the performance of the service, but answers that it was understood at the time, that they were to be wholly gratuitous; that she came to defendant's house as a visitor and guest. The court took the papers, and decision reserved.

With all due deference to the court, and with no disposition "to interfere with the course of justice," we render a verdict in favor of the plaintiff of a Grover and Baker's sewing machine, one of their very best, with a strict injunction that it be used by said plaintiff.

**Pension Examining Surgeons.**

The following appointments have been made by the Pension Bureau:

*New York.*—Alexander Cochrane, Westfield.

*Delaware.*—D. W. Maull, Wilmington.

*Iowa.*—S. C. Rogers, Toledo.

Dr. HORATIO R. STORER, of Boston, has been appointed Professor of Obstetrics in the Berkshire Medical College, Pittsfield, Mass. An excellent appointment, as the College will find.

**Tenement House Mortality.**

In New York-city 14,572 children died last year, two-thirds of them in tenement houses. In some of these houses the death rate was as high as four or five per cent. During the same year, out of 1,400 children in the N. Y. Juvenile Asylum, not one died. During the eight months ending Sept. 1, of the present year, out of 600, not one has died. For the past twelve years, the death rate has been only one-half of one per cent. These comparisons speak volumes as to the value of healthful food, pure air, and cleanliness.

**Leprosy Committee of the College of Physicians.**

Since our last notice, in the January number of this Review (*Social Science*) of the proceedings of this Committee, and of the work which up to that time had been done, a large contribution of most valuable materials has been received, through the Secretary of State for India, from the Bengal Presidency. It forms a goodly printed volume of five hundred folio pages, containing the replies to the interrogatories of the College from medical men, of the civil and military departments, scattered over the wide domains which are under the administration of the Governor-General—viz., at stations in Bengal, the Northwest provinces, the Punjab, Central India, Rajpootana, British Burmah, and Singapore. They considerably exceed a hundred in number, and many of them have been very elaborately and carefully prepared. Altogether, the mass of information as to the history of the disease as it exists at the present time in the different provinces of India, and illustrative of the hygienic and social condition of the lower classes of the native population, thus brought to light, would alone have sufficed to have made the work, which the College has undertaken at the request of the Colonial Office, a matter of much public interest. The Committee had previously received valuable communications from the Madras and Bombay Presidencies, and also from Ceylon.

**Who are Toughest?**

An army newspaper correspondent says—"In the army and among returned soldiers I have noted one fact in particular somewhat at variance with the usual theories. It is that light-haired men, of the nervous, sanguine type, stand campaigning better than the dark-haired men, of bilious temperament. Look through a raw regiment on its way to the field, and you will find fully one-half its members to be of the black-haired, dark-skinned, large-boned, bilious type. See that same regiment on its return for muster out, and you will find that the black-haired element has melted away, leaving two-thirds, perhaps three-fourths of the regiment to be represented by red, brown, and flaxen hair. It is also noticed that men from the cities, slighter in *physique*, and apparently at the outset unable to endure fatigue and privation, stand a severe campaign much better than men from the agricultural districts. A thin, pale-looking dry goods clerk will do more marching and starving than many a brawny plow-boy who looks muscular enough to take a bull by the tail and throw him over a staked-and-ridered fence."

**Iodine and Blood Corpuscles.**

In his "Miscellaneous Observations on the Blood," Dr. DAVY (we quote from the *Dub. Med. Press*) says:

"When the corpuscles are colored by the addition of a weak solution of iodine, not only the action of the warm vapor of the breath is in a great degree arrested, but even the action of water, and this after the immersion in water on a glass support for twelve hours, when they were found to retain their normal form, only slightly

contracted, with their nuclei distinct. May it not be conjectured from this that iodine medicinally used may operate in a degree similarly, and thus may arrest undue metamorphic disintegration?"

**On the Treatment of Hydrocele.**

Dr. JOLLIE recommends in the *Lancet*, the following plan which he has followed for some years, and invariably with success.

I tap the hydrocele by trocar and canula in the usual way, draw off the fluid, and then introduce through the canula into the cavity of the tunica vaginalis a common surgeon's probe, which has been previously coated for an inch of its length with nitrate of silver. I prepare the probe by heating the extremity to a dull red heat in the flame of a gas light, and placing it in a little finely-powdered nitrate of silver, and then again subjecting the probe to the heat, so as to form a smooth coating to the instrument. If your correspondent and other surgeons will make use of this method, they will, I have no doubt, quickly, effectually, and cheaply relieve their patients of a troublesome complaint.

**Extirpation of the Arm and Shoulder.**

At a meeting of the Academy of Medicine on May 16th, M. NIEPCE related the case of a man, aged 32, whose left arm had been seized in the machinery of a marble saw-mill. The humerus was crushed at the upper part; the joint was widely opened; and the clavicle and scapula were broken into several fragments. M. NIEPCE proceeded immediately, with the aid of Drs. BUREL and BORECHARD, to remove the entire shoulder. The patient recovered completely. The operation was performed on December 17th, 1860. —*Gazette Med. de Paris*, May 20, 1865.

**The Glycogenic function of the Liver.**

Dr. PAVY's experiments on the liver have been frequently and carefully repeated by Dr. RITTER, under MEISSNER's directions, and his conclusions found perfectly correct; viz., that sugar is never formed in the liver of a living healthy animal. Dr. RITTER's experiments are detailed in *HENLE's Zeitschrift*, 1865. He experimented on a large number of rabbits, dogs, cats, etc. The editor of the journal asks the question—What are the conditions which cause the so rapid conversion of the amyloid substance of the liver into sugar, when the organ is in an abnormal state?—may, he says, be answered by another: What are the conditions which prevent the passage of the amyloid substance into sugar in the healthy liver?

**Cure of Aneurism by Extirpation of Sac and Ligature.**

At the Academy of Medical Sciences at Lyons, M. OLLIER presented a specimen of an arterio-venous aneurism at the bend of the elbow, which had been cured by extirpation of the sac and ligature of the ends of the artery. Compression, applied before the operation, had prepared the way for a ready establishment of a collateral circulation.

**Prosecution for Illegal Practice.**

The Bourges Tribunal lately condemned a Pharmacia for making up and selling drugs without the order of a physician, and for practising medicine, 500 francs and the expenses.

**Deaths from Lightning in France.**

2238 persons have been killed by lightning in France between the years 1835 and 1863.

**MARRIED.**

**BOARDMAN-NICHOLS.**—At Bridgeton, N. J., on the 20th instant, by the Rev. H. A. Boardman, D. D., of Philadelphia, assisted by the Rev. Henry M. Stuart, Hallie A., daughter of Robert C. Nichols, Esq., of Bridgeton, and Charles H. Boardman, M. D., of Philadelphia.

**EASTER-DAYTON.**—On September 14th, by Prof. G. Draper, of Genesee College, Rev. J. Easter, and Miss J. E., eldest daughter of D. D. Dayton, M. D., Geneva, N. Y.

**HOSFORD-GAY.**—In Boston, Mass., September 12th, by Rev. E. B. Webb, D. D., Charles Hosford, M. D., of Thompson, Conn., and Miss Helen E. Gay, of Boston.

**PECK-PURDY.**—At the residence of the bride's father, in New York, by the Rev. J. C. Charier, on September 18th, W. F. Peck, M. D., of Davenport, Iowa, and Miss Maria Purdy, of Butler, N. Y.

**PHILLIPS-CUTLER.**—In Brooklyn, on Wednesday, September 13th, by the Rev. Marion McAllister, assisted by Rev. Lawrence H. Mills, H. J. Phillips, M. D., late Royal Wiltshire Militia, British Army, and Frances Caroline, daughter of F. M. Cutler, Esq., of Avon.

**VANDEVENTER-ORMSBY.**—In Jersey City, on Wednesday evening, September 20th, by Rev. James B. Murray, M. A., of New Haven, Conn., Dr. Z. A. Vandeventer, and Miss Fannie A. Ormsby.

**WHILLDIN-WILLIAMS.**—At Erie, Pa., on the 14th instant, by the Rev. Dr. Lyon, Dr. J. Stites Whilldin, of Philadelphia, and Miss Mary D. Williams, daughter of the late James Williams, of the former place.

**DIED.**

**LAYTON.**—At Wilmington, Del., September 18th, 1865, Mrs. Mary H. Layton, wife of Captain C. R. Layton, U. S. A., and daughter of Dr. L. P. Bush, of Wilmington.

**QUINN.**—In this city, on the 18th instant, Hamilton, infant son of Dr. John Paul and Emily Quinn.

**STRONG.**—At Saratoga Springs, on Monday, September 18th, Sylvester Ray, son of Dr. S. E. and Anna R. Strong, and grandson of Dr. S. S. Strong, aged 5 months and 10 days.

**VARLEY.**—In New York, on Wednesday, September 30th, Eliza M., wife of Dr. C. D. Varley.

**OBITUARY.****Professor Robert Remak, M. D.**

Professor ROBERT REMAK, of Berlin, a brother of Gustavus Remak, Esq., of this city, died on the 29th of August, in Kissingen, a celebrated watering place in Bavaria. His physiological and other scientific researches, as well as their practical application in improvements of the healing art, gained for him, years ago, the warmest acknowledgments from such men as Schoenlein, Johannes Muller, and Alexander von Humboldt.

His labors in the same spheres since have constantly been a source of the most valuable instruction

to the learned, the universities and the academies of the scientific and medical world, inciting researches into the most important problems of life and of the healing art, Professor REMAK's works on the medical application of the magnetic and galvanic electricity, and his peculiar treatment of diseases based on his discoveries, are world renowned, and have found, as might be expected, both enthusiastic adherents as well as bitter opponents. Laboring further to extend and disseminate the fruits of his researches and discoveries, he exhausted the strength of a life that proved so beneficial to the world, and that otherwise could have been prolonged to an old age by the enjoyment of the ample worldly means he possessed.

Shortly before his death he had the joyful satisfaction that his discoveries were honorably recognized by, and practically introduced in the academy and the clinical hospitals of Paris. He has gloriously run a laborious and tedious course.

**ANSWERS TO CORRESPONDENTS.**

*Dr. A. P. D., Cleveland, Ohio.*—Hassall's Urine in health and disease, sent by mail Sept. 22d.

**American Medical Association.**

In consequence of the expense of the publication of Vol. XVI. (1865) of the Transactions, the Committee of Publication have fixed the price at five dollars (\$5). Members who have already paid three dollars (\$3), are requested immediately to forward the additional sum, (\$2.) As the number of copies published will be but slightly in excess of the number of subscriptions, those who desire copies should immediately forward the amount either to the Treasurer, Dr. C. WISTEY, 1303 Arch street, or to

WM. B. ATKINSON, Permanent Secretary.  
215 Spruce st., Philadelphia.

Sept. 18, 1865.

**METEOROLOGY.**

September	18,	19,	20,	21,	22,	23,	24.
Wind.....	N. E.	N. W.	N. W.	W.	S. W.	N. E.	E.
Weather.....	Cl'dy.	Clear.	Clear.	Clear.	Clear.	Cl'dy.	Clear.
Depth Rain.....	7-10						
Thermometer.							
Minimum.....	64°	45°	46°	58°	55°	64°	67°
At 8 A. M.....	72	59	61	68	68	65	70
At 12 M.....	73	62	68	72	75	67	76
At 3 P. M.....	73	63	68	75	78	65	74
Mean.....	70.50	57.25	60.75	67.50	69.	65.25	71.75
Barometer.							
At 12 M.....	29.9	30.3	30.3	30.2	30.2	30.4	30.3

Germanstown, Pa.

B. J. LEEDON.

**WANTED.**

Subscribers having any of the following numbers to spare, will confer a favor, and likewise be credited on their running subscriptions, with such as they may return us.

Vols. I, II, III & IV. All the numbers.

Vol. V. No. 1, Oct. 6, '60; No. 19, Feb. 9, '61.

" VI. Nos. 19, 19, Aug. 3, 10, '61.

" VII. Nos. 1, 2, 6, Oct. 5, 12, Nov. 9, '61; Nos. 10 to 12, Dec. 7, '61, to March 8, '63.

" VIII. Nos. 17, 18, 19, 22, 23, July 26, Aug. 2, 9, 30, Sept. 6, '62.

" IX. Nos. 6, 7, 8, 13 & 14, 17 & 18, Nov. 8, 15, 22, '62; Dec. 27, '62, and Jan. 3, '63, Jan. 24 & 31, '63.

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" XII. Nos. 1, 5, 11, 12, 17, July 2, Sept. 10, Oct. 22, 29, '64, Feb. 4, '65.

As we are in pressing need just now of a few copies for new subscribers, of No. 414, Feb. 4, 1864.